Attorney Reference Number 3382-66128-01
Application Number 10/622,284

Amendments to the Specification

Please replace the paragraph beginning at page 1, line 4, with the following rewritten paragraph:

The following co-pending U.S. patent applications relate to the present application and are hereby incorporated herein by reference: 1) U.S. Patent Application Serial No. ~~aa/bbb,ccc~~ 10/622,378, entitled, "Advanced Bi-Directional Predictive Coding of Video Frames," filed concurrently herewith; and 2) U.S. Patent Application Serial No. ~~aa/bbb,ccc~~ 10/622,841, entitled, "Coding of Motion Vector Information," filed concurrently herewith.

Please replace the paragraph beginning at page 15, line 12, with the following rewritten paragraph:

If the current frame 805 is a forward-predicted frame, a motion estimator 810 estimates motion of macroblocks or other sets of pixels of the current frame 805 with respect to a reference frame, which is the reconstructed previous frame 825 buffered in a frame store (e.g., frame store 820). If the current frame 805 is a bi-directionally-predicted frame (a B-frame), a motion estimator 810 estimates motion in the current frame 805 with respect to two reconstructed reference frames. Typically, a motion estimator estimates motion in a B-frame with respect to a temporally previous reference frame and a temporally future reference frame. Accordingly, the encoder system 800 can comprise separate stores 820 and 822 for backward and forward reference frames. For more information on bi-directionally predicted frames, see U.S. Patent Application Serial No. ~~aa/bbb,ccc~~ 10/622,378, entitled, "Advanced Bi-Directional Predictive Coding of Video Frames," filed concurrently herewith.

Please replace the paragraph beginning at page 29, line 14, with the following rewritten paragraph:

The predictor is calculated by taking the component-wise median of the three candidate motion vectors. For more information on median-of-three prediction, see U.S. Patent Application Serial No. ~~aa/bbb,ccc~~ 10/622,841, entitled, "Coding of Motion Vector Information," filed concurrently herewith. Alternatively, the predictor is calculated using some other method.

Attorney Reference Number 3382-66128-01
Application Number 10/622,284

Please replace the paragraph beginning at page 30, line 20, with the following rewritten paragraph:

After cmv_x and cmv_y are computed, the encoder/decoder can check to see if components should be pulled back (e.g., if the components map to an out-of-frame macroblock.) For more information on motion vector pull-back techniques, see U.S. Patent Application Serial No. ~~aa/bbb,ccc~~ <u>10/622,841</u>, entitled, "Coding of Motion Vector Information," filed concurrently herewith.

Please replace the paragraph beginning at page 31, line 9, with the following rewritten paragraph:

<u>D.</u> [[E.]]   **Interlaced B-frames**

Page 3 of 12